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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/576,277	04/18/2006	Tsukasa Fujieda	060322	9712

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EXAMINER
WALTERS JR, ROBERT S

ART UNIT	PAPER NUMBER
1792	

MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/576,277	FUJIEDA, TSUKASA	
	Examiner	Art Unit	
	ROBERT S. WALTERS JR	1792	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 September 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3,5-9,11 and 12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,5-9,11 and 12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Status of Application

Claims 1-3, 5-9, 11 and 12 are pending and presented for examination.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/11/2009 has been entered.

Response to Arguments

Applicant's arguments filed 8/11/2009 have been fully considered but they are not persuasive. First, applicant argues that Tomioka is different from the present invention in the problem to be solved by the invention and in the means for solving the problem. The examiner believes that the applicant is arguing that Tomioka is non-analogous art. However, in response to applicant's argument that Tomioka is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24

USPQ2d 1443 (Fed. Cir. 1992). In this case, Tomioka is in the field of applicant's endeavor, since both applicant and Tomioka are interested in processes for forming a luster coating film.

Second, the applicant argues that Tomioka actually suggests the application of a single thick coating and not successive applications of coating of less than 5 microns. However, the examiner disagrees with this contention, as Tomioka actually suggests the application of a first thick coating followed by applications of coatings of low thickness as a means for achieving optimal visual characteristics for coatings of metallic paints of light colors (column 2, lines 58-64).

Finally, the applicant argues that the amendment to recite that the base coating composition is applied in four or five stages is not obvious over the applied references of record. The examiner disagrees with this as Tomioka actually suggests application of the base coat in more than 3 stages (column 2, lines 58-64). Therefore, the examiner maintains that it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Tomioka's process by applying the base coat in four or five stages. One would have been motivated to make this modification to apply a desired coating thickness while optimizing the visual properties of the coating (column 2, lines 58-64).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

1. Claims 1-3, 5-9, 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tomioka (U.S. Pat. No. 5079030) in view of Carpenter (U.S. Pat. No. 5320673) and Takashi et al. (JP 2001-149857, a machine translation of the disclosure is provided) and Noritake et al. (JP 2003-117481, a machine translation of the disclosure is provided).

Regarding claims 1-3, 5-9, 11 and 12, Tomioka teaches a method of forming a luster coating film (see abstract) comprising the steps of:

(1) applying an aqueous luster base coating composition to a substrate in three stages, such that the thickness of the base coating applied in each of the second and subsequent stages is between 0.3 to 5 μm when cured (column 4, lines 19-32);

(2) applying a clear coating composition over the uncured or heat-cured coating layer of the base coating composition (column 4, lines 38-40);

(3) heating the two-layer coating comprising the base coating composition and the clear coat to obtain a cured two-layer coating film (column 4, lines 40-45).

Tomioka further teaches applying the base coating in the first stage to a thickness of 8 microns, wherein the solids content of the thermosetting base coating is 50-80% after the first stage.

Tomioka further teaches the substrate that is being coated is an automotive body (abstract), and also therefore teaches an automotive body having a luster coating film formed by the method (abstract). Finally, Tomioka teaches allowing the coating to stand or preheating it between the first stage and the second stage (column 3, lines 50-62).

Tomioka however fails to explicitly teach the base coating and clear coating being a thermosetting coating, the aqueous base coating comprising the components as claimed in claims 2 and 8, and an additional step of applying a second clear coat layer above the first clear coat layer. Tomioka also fails to teach the base coating composition having a solids content of 15 %, the coating being allowed to stand or preheated between *each* coating stage, and the coating having at least 40 weight % solids content one minute after application in each stage. Finally, Tomioka fails to teach the base coating being applied in four or five stages.

First, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Tomioka's method by applying the base coat in four or five stages to obtain a desired base coat thickness and appearance. Tomioka actually suggests the use of applying more than two coats with the air spray gun (column 2, lines 58-64). One would have been motivated to make this modification to optimize the appearance of metallic paint of light colors, such as silver (column 2, lines 58-64).

Carpenter teaches a method of forming a luster coating using an aqueous luster base coat and a clear coat (column 16, lines 54-68). Carpenter teaches that both these coatings may be thermosetting compositions (column 16, lines 65-66) and that preferably the clear coat is applied in two layers (column 16, lines 60-63). Carpenter further teaches an aqueous (column 14, lines 52-56) luster thermosetting base coat composition comprising a water soluble or dispersible

crosslinkable functional group-containing resin (column 14, lines 63-68), a crosslinking agent (column 15, lines 3-7), and a flaky luster pigment (column 13, lines 45-47 and column 14, lines 40-42) which has been surface modified. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Tomioka's method of forming a luster coating film by utilizing a thermosetting aqueous luster base coat comprising a water-soluble or dispersible resin, a crosslinking agent, and a flaky luster pigment, as well as applying a thermosetting clearcoat upon this layer either once or twice (to obtain a three-layer coating film) according to Carpenter. One would have been motivated to make these modifications as Carpenter teaches that his method provides coatings having an excellent appearance and physical properties (column 16, lines 66-68) and that the metallic flakes described are resistant to oxidation with minimal discoloration or diminution of the metallic effect, and provide superior dispersion in the waterborne composition and thus result in a coating with an enhanced metallic effect and improved color development (column 2, lines 31-43).

Takashi teaches forming a luster coating by forming a first metallic coating (the compositions similar to that of Carpenter, see 0008 and 0014) followed by a clear coat and then further applying a second metallic coating and a second clear coat layer followed by curing of all the coats (abstract). Takashi also teaches that the aqueous luster thermosetting base coating composition has a solids content of 14 weight % (0033 and 0035). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Tomioka's method by maintaining the solids content of the base coating composition to be about 5 to 15 weight %. One would have been motivated to make this modification as Takashi teaches that this can provide coatings free from metal unevenness and having an excellent flip-flop property

(abstract). Furthermore, the selection of the solids content of the coating composition would impact both the coatability of the composition as well as the drying time required for the composition, therefore it would also have been obvious to one of ordinary skill in the art at the time of the invention to choose the instantly claimed range through process optimization, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. See In re Boesch, 205 USPQ 215 (CCPA 1980).

Noritake teaches the importance of drying (by standing or heating, see 0019) an aqueous thermosetting base coating composition prior to applying any aqueous metallic pigment compositions thereon to a solids content of greater than 40 % (see abstract, 0008 and 0019). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Tomioka's method by allowing the base coating to stand or heating it after each coating stage, such that the solids content one minute after application is greater than at least 40 weight %. One would have been motivated to make this modification as Noritake teaches that this results in the metallic coating film having excellent orientation of the metallic pigment, as well as an excellent flip-flop property.

Conclusion

Claims 1-3, 5-9, 11 and 12 are pending.

Claims 1-3, 5-9, 11 and 12 are rejected.

No claim is allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROBERT S. WALTERS JR whose telephone number is (571)270-5351. The examiner can normally be reached on Monday-Friday, 8:00am to 5:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on (571)272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael Barr/
Supervisory Patent Examiner, Art Unit 1792

/ROBERT S. WALTERS JR/
September 14, 2009
Examiner, Art Unit 1792